

### **DETAILED ACTION**

1. This action is in response to applicant's amendment received on June 11, 2008.

#### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Certified copies of the priority documents have been received.

#### ***Specification***

3. The disclosure is objected to because of the following informalities:

On page 2 of the specification, in line 11, the word "heat" should be inserted between the word "combined" and the word "and".

On page 4 of the specification, in line 32, the word "is", which immediately precedes the word "disclosed", should be changed to the word "as".

On page 5 of the specification, in line 3, the word "as", which immediately precedes the word "required", should be changed to the word "is".

On page 7 of the specification, in line 21, reference character "2" is used to denote the "wall". However, reference character "2" is also used to denote the "brackets" throughout the disclosure. The examiner believes that the reference character corresponding to the "wall" should be "W" in lieu of "2".

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 and 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nannini et al. (US 4,495,901) in view of Vieira (US 5,433,414). These two references, when considered together, teach all of the elements recited in **claims 1 and 2** of this application, except for the obvious duplication of parts (claim 2).
6. In particular, claim 1 of this application is obvious when Nannini et al. is viewed in light of Vieira. Nannini et al. discloses the invention substantially as claimed, including: a domestic combined heat and power appliance (see Figs. 1-3) including a prime mover (e.g., internal combustion engine 2) to generate electrical power and heat output, a housing (support casing 1) containing the prime mover (2); and a plurality of flexible utility connections (see Fig. 2) provided on the housing (1). Refer to Nannini et al., Figures 1-3; column 2, lines 27-41.

However, claim 1 of this application further discloses at least one bracket at each side of the housing adapted to mount the housing to a wall, each bracket comprising a main body which is elongate in a vertical direction and has a L-shape cross section, each extremity of the L-shape cross section having an enlarged portion, a first of which provides a spacer between the main body and the housing, and a second of which provides a spacer between the main body and the wall. Nannini et al. does not disclose these additional limitations.

Vieira, although, teaches a wall mounting arrangement for equipment enclosures having at least one bracket (e.g., first bracket member 1, second bracket member 2) at each side of an equipment housing (S) adapted to mount the equipment housing (S) to a wall, each bracket (1, 2) comprising a main body (formed by projecting arm member 1a, 2a and base arm member 1b, 2b)

which is elongate in a vertical direction (e.g., as shown in Fig. 2C, the main bodies of bracket members 1, 2 are elongate in a vertical direction) and has a L-shape cross section (projecting arm member 1a, 2a together with base arm member 1b, 2b forms an L-shaped cross-section), each extremity of the L-shape cross section having an enlarged portion (e.g., as shown in Figs. 2B and 4, first bracket member 1 has a first enlarged portion formed by ball member 4 at a first end and a second enlarged portion formed by its overlapping engagement with member 2b at a second end; similarly, second bracket member 2 has a first enlarged portion formed by pad member 8 at a first end and second enlarged portion formed by its overlapping engagement with member 1b at a second end), a first (e.g., 4, 8) of which provides a spacer between the main body and the housing (S), and a second (e.g., overlapping engagement between base arm members 1b, 2b) of which provides a spacer between the main body and the wall for the purpose of securely mounting the equipment housing (S) to the wall, while also damping vibrations generated thereby. See Vieira, Figures 1-4; column 2, lines 4-66. Therefore, when Nannini et al. is viewed in light of Vieira, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined heat and power appliance of Nannini et al. by attaching its housing to a wall using brackets (1, 2) having enlarged portions at their extremities that act as spacers, as taught by Vieira, in order to enable the housing to be securely mounted to a wall, while also desirably damping vibrations generated thereby. Refer to Vieira, column 2, lines 62-66.

7. In regard to claim 2, Nannini et al., as modified by Vieira, does not expressly teach that a plurality of brackets are provided at each side of the housing. However, the Court of Customs and Patent Appeals has held that the “mere duplication of parts has no patentable significance

unless a new and unexpected result is produced". See MPEP § 2144.04(VI)(B) (quoting *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)). In this case, providing a plurality of brackets at each side of the housing, rather than a single bracket at each side of the housing, would merely enable the housing to be more securely affixed to a wall structure. One of ordinary skill in the art would expect that a single bracket at each side of the housing may not be able to adequately support a large, heavy piece of equipment and that such a limitation could be overcome simply by the addition of multiple brackets on each side of the equipment housing. Consequently, because the ability to more securely affix a heavy piece of equipment to a wall is neither a new or unexpected result of utilizing multiple brackets at each side of the housing in lieu of a single such bracket, the plurality of brackets recited in claim 2 of this application have no patentable significance and these claims are properly rejected under 35 U.S.C. 103(a) as being obvious over Nannini et al. in view of Vieira.

8. **Claims 3 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nannini et al. (US 4,495,901) in view of Vieira (US 5,433,414) as applied to claims 1 and 2 above, and further in view of Ackermann et al. (US 4,389,844). These three references, when considered together, teach all of the elements recited in **claims 3 and 9** of this application.

9. In particular, claims 3 and 9 of this application are obvious when Nannini et al. is viewed in light of Vieira, and further viewed in light of Ackermann et al. As described above, Nannini et al., as modified by Vieira, teaches all the elements of base claims 1 and 2, the claim upon which these claims both respectively depend. However, claims 3 and 9 of this application further disclose that the prime mover is a linear free piston Stirling engine. Nannini et al., as modified by Vieira, does not teach this additional limitation. Ackermann et al., although, teaches

a prime mover in the form of a linear free piston Stirling engine that is particularly suitable for use in cogeneration systems as a result of the waste heat generated therefrom. Refer to Ackermann et al., Figure 2; column 2, lines 21-24; column 3, lines 63-68; and column 4, lines 1-9. Therefore, when Nannini et al. is viewed in light of Vieira, and further viewed in light of Ackermann et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined heat and power appliance of Nannini et al. in view of Vieira by using a linear free piston Stirling engine for the prime mover (2), as taught by Ackermann et al, in order to maximize the heat output capacity of the appliance by utilizing an engine configuration that is particularly suited for waste heat recovery. See Ackermann et al., column 2, lines 21-24.

10. **Claims 5-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nannini et al. (US 4,495,901) in view of Vieira (US 5,433,414) as applied to claim 1 above, and further in view of Meyers (US 4,263,498). These three references, when considered together, teach all of the elements recited in **claims 5-8** of this application.

11. In particular, claims 5-8 of this application are obvious when Nannini et al. is viewed in light of Vieira, and further viewed in light of Meyers. As described above, Nannini et al., as modified by Vieira, teaches all the elements of base claim 1, the claim upon which these claims depend. However, claims 5-8 of this application further disclose that (claim 5) the housing is provided with at least one flexible inlet/outlet connection for fluid; wherein (claim 6) the flexible connection is provided by an oversize opening in the housing through which an inlet/outlet pipe extends, and a flexible seal between the hole and the pipe; (claim 7) the inlet/outlet connection is provided with a flexible pipe section to absorb pressure pulses; and (claim 8) the inlet/outlet pipe

is provided with a flexible pipe section to absorb pressure pulses. Nannini et al., as modified by Vieira, does not teach these additional limitations. Meyer, although, teaches a hot water heating appliance having a housing (44, 68, 80) that is provided with at least one flexible inlet connection for fluid (water), wherein the flexible connection is provided by an oversize opening (see Fig. 1) in the housing (68) through which an inlet pipe (e.g., 62) extends, and a flexible seal (rubber grommet 66) between the hole and the pipe (e.g., 62) and the inlet pipe connection is provided with a flexible pipe section (e.g., flexible tube 54) for the purpose of providing a seal around the pipe opening in the housing (68), while still allowing a limited movement of the pipe so as to accommodate for thermal expansion. Refer to Meyer, Figure 1 and column 5, lines 15-23 and 58-63. Therefore, when Nannini et al. is viewed in light of Vieira, and further viewed in light of Meyer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined heat and power appliance of Nannini et al. in view of Vieira by providing the housing (1) with at least one flexible inlet/outlet fluid connection that includes flexible seal (66) in an oversized hole and a flexible pipe section, as taught by Meyer, in order to provide a seal around the pipe opening in the housing, while still allowing a limited movement of the pipe so as to accommodate for thermal expansion and pressure pulses.

#### ***Response to Arguments***

12. Applicant's arguments with respect to pending claims 1-3 and 5-9 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Suggestions***

13. As explained above, the claims fail to define over the teachings of the prior art references

in their present form. However, the following changes to claim 1, as proposed by the Examiner, were discussed with Sumner C. Rosenberg, Attorney for Applicants, on March 4, 2010 in order to at least clearly define over the prior art of record (additions have been indicated with underlining, deletions have been indicated with a strikethrough):

1. (Proposed Examiner Changes) An appliance comprising:

a domestic combined heat and power appliance including a prime mover to generate electrical power and heat output, a housing containing the prime mover;

and at least one bracket at each side of the housing ~~adapted to mount~~ structurally supporting the housing to a from a vertical wall, each bracket being independent from the other ~~and~~ comprising a main body which is elongate extends in a vertical direction when installed on the vertical wall and has a L-shape cross section as defined in a horizontal plane, each extremity of the L-shape cross section having an enlarged portion, a first of which extends continuously from a first leg of the main body and provides a spacer between the first leg of the main body and the housing, and a second of which extends continuously from a second leg of the main body and provides a spacer between the second leg of the main body and the wall.

In an effort to expedite the prosecution of this application, the Examiner has included these proposed changes in this Office Action so that they may considered by the Applicants in any future amendments.

*Conclusion*

14. See attached form PTO-892 for additional pertinent prior art, which was not directly relied upon in this action.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick F. O'Reilly III whose telephone number is (571) 272-3424. The examiner can normally be reached on Monday through Friday, 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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